

AMENDED CLAIMS (CLEAN COPY)

1. An apparatus for measuring the distance traveled along an arcuate path by a movable object, said apparatus comprising:

a member movable along a fixed arcuate path to a position along said path corresponding to the relative position of the object;

a plurality of spaced electrical contacts insulated from one another and positioned along at least one side of said path, said movable member contacting one of said plurality of contacts located at the current position of said movable member along said arcuate path ;

data-storing means including a corresponding plurality of memory locations each of which stores preset, different distance measurement data, means coupled to each of said plurality of contacts for respectively electrically connecting each of said plurality of contacts to each of said plurality of memory locations, each of said distance-measurement data stored respectively in said plurality of memory locations being uniquely associated with the relative location of said one of said plurality of contacts along said path;

output means connected to said data-storing means; and means connected to said plurality of contacts for applying a control signal to the one of said memory locations that is connected to the one of said plurality of contacts then in contact with said movable member, said control signal being effective to transfer the distance-measurement data stored in the said one of said memory locations to said output means;

whereby said movable member is effective as it moves along said path to cause only the distance-measurement data stored in the said one of said memory locations to be applied to said output means.

9. The apparatus of Claim 1, further comprising a voltage source, said member being effective when in electrical contact with one of said contacts to place an associated one of said memory locations in circuit arrangement with said voltage source and to provide said control signal to said one of said memory locations.

17. A method for determining the distance traveled by a movable object along an arcuate path, said method comprising the steps of:

arranging a plurality of fixed, spaced and insulated contacts along at least one side of a fixed arcuate path;

moving an electrically conductive member along said path by an amount representative of the relative movement of said object, thereby causing said movable member to make electrical contact with one of said contacts;

storing respectively a corresponding plurality of different preset distance-measurement data in a corresponding plurality of data-storing locations in a memory respectively, the distance-measurement data stored in said plurality of data-storing locations being respectively uniquely associated with one of said plurality of contacts; electrically connecting each of said plurality of contacts respectively to each of said plurality of data-storing locations through a corresponding plurality of conductors; and

causing a control signal to be applied over one of said plurality of conductors to the one of said data-storing locations associated with and connected to, the one of said plurality of contacts then contacted by said movable member and thereby causing the distance-measurement data stored in said one of said data-storing locations to be applied to an output device.